E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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THIS WEEK IN THE MARKETS...

- **Copper producers drop price in U.S. to 25c delivered; smelters drop to 24½c.**
- **London down to 21.67c. Chilean Government asks Chilean producers to cut 10%.**
- **Lead and zinc sales low. Alcoa ceases expansion activity until market firms.**

COPPER—domestic average 25.370c per lb f.o.b. ref'y

Pricings of copper in the U.S. were almost unchanged from last week; sales abroad were better. The drop in the foreign average price was attributable only in part to the lower prices of fixings on the LME and to the price cuts announced Jan. 13 and 14.

Kennecott cut the price of its electrolytic copper delivered to U.S. customers to 25c effective Monday, Jan. 13. The price had dropped to 27c Sept. 3. Other sellers followed on Jan. 13; Anaconda dropped to 25c on the 14th. International Nickel and other Canadian producers dropped the 13th to 24.75c Canadian currency delivered Toronto and comparable points. This is equivalent to the U.S. 25c at the current exchange rate. A major custom smelter dropped immediately to 24½c; the three smelters were willing to sell at this price. This price is not firm. Copper products dropped by 2c and brass products dropped accordingly. Brass and bronze ingots came down 1c. London prompt bid, which had gone up about ⅛c Monday morning, dropped almost ½c at the afternoon call to about 21.8c. Yesterday afternoon it was about 21.67c. The premium on the continent rose to £7 or 8 from £5 or 6. Dealers will sell standard shapes delivered nearby points in the U.S. at about 23⅞c; some might cut it to 23¾c.

Chile announced over the weekend that the Anaconda and Kennecott mines are being asked to reduce output by 10% relative to their 1956 Chilean output. Anaconda produced 309,171 tons and Kennecott 179,896 in 1956. In 1957, the output of both were about the same as 1956. Presumably a 10% reduction would cut the current annual rate about 48,900 tons. It is implied if other producers do not cut, Chile might rescind its decision. But other major producers already have cut (but the Oppenheimer group owing to production difficulties and strikes). Figures for the Belgian Congo for July show about a 10% drop that month; these data are probably for shipments to the export port and may be correlated with output of a month earlier. It is doubtful Chile expects other producers to cut again. A cable from Chile says Anaconda has ordered the 10% cut, but Braden is studying the matter. The latter usually has lower output in February through April because of a seasonal water shortage.

Copper Institute data for Dec. 1956 and Oct., Nov. and Dec. 1957:

United States

	Dec. 1956	1957 Oct.	1957 Nov.	1957 Dec.
Production:				
Crude primary	90,909	93,078	(a)90,045	94,388
Crude secondary	12,180	9,029	(a)8,312	8,135
Total	103,089	101,818	(a)98,357	102,523
Refined copper	129,839	129,832	(a)128,218	136,135
Deliveries refined	99,594	114,203	(a)106,799	80,641
Stock, end, ref'd	120,654	166,976	161,522	181,024

Outside United States

Production:				
Crude primary	144,187	161,767	(a)163,672	151,678
Crude secondary	772	697	627	625
Total	144,959	162,387	(a)164,299	152,303
Refined copper	120,020	137,106	(a)130,001	128,137
Deliveries, refined	137,909	132,087	(a)147,591	137,706
Stock, end, ref'd	232,961	261,015	(a)265,249	277,316

(a) Corrected

LEAD—13c New York

Lead sales this week were 3,320 tons. This is a little better than last week though still very low. Prompt lead in London is about 8.9c, about 4.1c under N. Y. Importers feel this margin gives a better chance of barter deals than the other metals since CCC relates its metal price to regular U.S. prices. In zinc, and especially copper, the CCC suggested prices are not enough to cover the risks involved on the farm product side and the metal side. For small lots that can be moved quickly, the risk of a duty increase, which would have to be met by the dealer, would be slight.

Nearly all sales are at the *M&MM* average suggesting little confidence in the 13c price.

ALUMINUM—primary pig 26c per lb; ingot 28.1c

Alcoa said it will stop work on three expansion projects because the market is not taking all of its present output. Included is the $80-million smelter at Warrick, Ind. and the primary facilities at Pt. Comfort Tex. When the market warrants, work will be resumed.

ZINC—10c East St. Louis

Zinc sales this week were under last week but better than for most weeks of December. Sellers are not encouraged by the zinc market or the general state of the economy. There is some feeling the price has remained at 10c rather long.

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A new name in metals—American Metal Climax, Inc.—arises from the merger of two well-known companies, The American Metal Company, Ltd. and Climax Molybdenum Company.

American Metal Climax, Inc. now offers expanded facilities and services. Its activities include mining, smelting, refining, marketing, exploration and research. Its products are molybdenum in all forms, potash, copper, lead, zinc, uranium, vanadium, tungsten, tin, solder, metal powders, precious and rare metals, selenium, germanium, tellurium, cadmium, cobalt, bismuth, arsenic, oil and gas, and others. Its interests circle the globe; principal business activities are in North America, Western Europe, and Africa.

AMERICAN METAL CLIMAX, INC.
61 Broadway, New York 6, New York

Climax Molybdenum Company—a Division
500 Fifth Avenue, New York 36, New York

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Toronto, Ontario, Canada

THE ANGLO METAL COMPANY LIMITED
London, England

BLACKWELL ZINC COMPANY, INC.
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Monterrey, Mexico

CÍA. MINERA DE PEÑOLES, S.A.
Monterrey, Mexico

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HEATH STEELE MINES LIMITED
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RHODESIAN SELECTION TRUST LIMITED
Salisbury, Southern Rhodesia

SOUTHWEST POTASH CORPORATION
Carlsbad, New Mexico

UNITED STATES METALS REFINING COMPANY
Carteret, New Jersey

E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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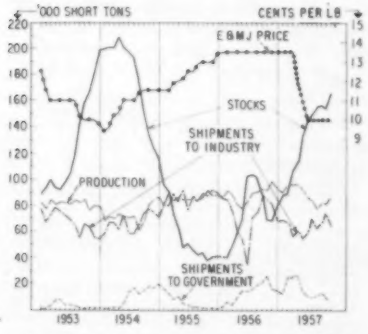
U. S. Slab Zinc



The above data, except price, are from the American Zinc Institute and are in thousands of short tons. They refer to slab zinc of all regularly operating United States primary and secondary smelters. Production from foreign ores is included. Data include December 1957.

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Haile Mines Acquires National Paint & Manganese

Haile Mines Inc. announced the acquisition of National Paint & Manganese Co. Lynchburg, Va. It will operate as a division of Haile.

National Paint & Manganese Co. was organized about 65 years ago. In 1920 John M. Carter and Joseph J. Thaxton purchased the company and have continued as sole owners up to this time. Under the new set-up, Messrs. Carter and Thaxton will be co-managers of the division.

Its principal business is the production of ground manganese ores. These ores, in turn, are sold almost entirely to the brick industry as a coloring agent.

Automakers Much Concerned But Not Yet Panicked

Detroit (McGraw-Hill Detroit News Bureau): The year 1957 wound up as automobiledom's fourth best year in history missing third place by 20,000 units. U.S. totals as counted by Ward's Automotive Reports were 6,115,467 passenger cars, 1,079,000 trucks and busses. This checks closely with an earlier automobile manufacturers association estimate of 7,220,000 motor vehicles.

Automakers' traditional year-end statements were cautiously optimistic for 1958 at best. All worried about slipping consumer confidence in the economy; e.g., GM president Harlow Curtice who said: "As we try to look ahead an all-important factor in the business picture is confidence — confidence on the part of both business and the consumer. For various reasons confidence at present seems to be somewhat shaken and an attitude of caution appears to prevail. This can have a substantial effect on the level of economic activity."

He was echoed by Ford economist George Hitchings. "Business and consumer spending," he noted, "are questionable segments. Consumers played a key role in stemming the 1953-54 decline by maintaining their spending in the last half of 1953 and increasing it in 1954. Maintenance of consumer spending is again essential during the present declining phase of the economy."

He continued: "In the auto industry, we expect to have below-normal years when total business activity temporarily declines, but we also expect to follow such years with above-normal years. The long-run outlook is not changed as a result of a slowing down in one year. The auto market is sensitive to shifts in consumer incomes and psychology, however, and we are concerned lest these shifts be allowed to proceed too far."

Automakers are truly concerned but not yet panicked. Their biggest problem is not being able to spot all the causes for the drop in sales. Consumer confidence being shaken by pessimistic talk and sputniks is one thing, but all the barometers point to a good year for 1958 when everything is averaged out.

American Motors president George Romney, enjoying a 17% increase in sales and his company's first quarterly profit since 1952 has a lucid if somewhat slanted reason. He says: "The industry as a whole has not offered products with the sales stimuli that would be provided by appropriate attention to changing consumer needs and desires." He is, of course, referring to the evident popularity of his own line of "compact" cars and the mounting tide of imports, expected to reach 300,000 in 1958.

GM president Curtice said in his year-end statement that his company's sales are currently running at the rate of 5½-million passenger cars for the calendar year. Ward's Automotive Reports projects production for 1958 at 5.3-million units. Most observers agree that unless a spring sales surge, traditional up until the last few years, is revived, that actual production will fall somewhere between those two figures. Trucks are expected to hold firm at 1.1-million units.

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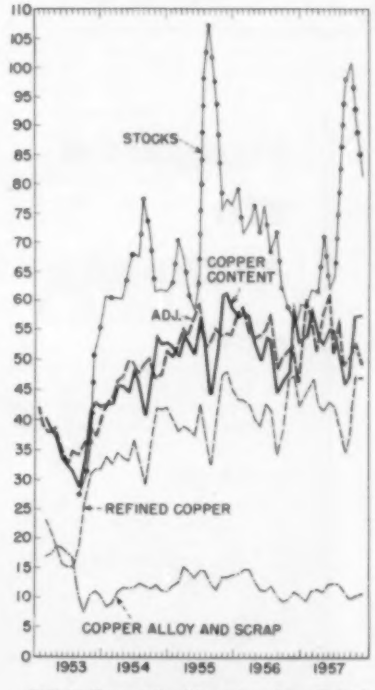
U. K. Copper Fabricating



Data in thousands of long tons from British Bureau of Non-ferrous Metal Statistics. All series except stocks refer to copper content of fabricated products. All are two months moving averages except stocks and the one marked "adj." The last is the copper content series adjusted for seasonal variation — this adjustment mainly eliminates the regular low of April, July and August, and the high in March and September through December. Data through November 1957.

International Minerals and Metals Corporation

11 BROADWAY, NEW YORK 4, N. Y.

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COPPER, ZINC

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BUYERS

ORES, CONCENTRATES
SCRAP, RESIDUES
FOR PHELPS DODGE PLANTS
in Laurel Hill, L.I., N.Y.
Douglas, Arizona — El Paso, Texas
FOR NATIONAL ZINC COMPANY
(Subsidiary)
Bartlesville, Oklahoma

▼

SELLERS

COPPER (ELECTROLYTIC)
CADMIUM
ZINC AND BY-PRODUCTS
MERCURY

Tungsten
Tin
Antimony

BUYERS

Tungsten Concentrates, Tungsten Tin Concentrates • Mixed Tungsten Ores • Tungsten Tailings, Scrap, Tips, Grindings • Tin Concentrates — Tin Dross, Tin Furance Bottoms.

SELLERS

Tungsten Concentrates to Buyers' Specifications • Tungsten Salts, Tungsten Powder • Tungsten Rods, and Wires • Tin Ingots, Tin Oxides, Tin Chlorides.

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Miscellaneous Metals

Wholesale lots, (a) f.o.b. ship. pt.; (b) delivered; (c) f.o.b. N. Y.

ALUMINUM: lb (b), 30 lb ingot 99.5%, 28.1c; pig, 26c. Ingot, 99.75%, 28.6c; 99.85%, 30.1

ANTIMONY: lb, Jan. 9-15, boxed N. Y. (c), 36.590c; bulk (a), 33c; boxed (a), 33½c.

BISMUTH: lb, ton lots, $2.25

CADMIUM: lb (b), Jan. 9-15, sticks $1.55; shapes, $1.55.

CALCIUM: lb, ton lots, slabs, pieces, $2.05

CHROMIUM: lb (b), 97%, .5%C, $1.29; 9-11%C, $1.38; Elec., 99%, $1.29. Eff. 9-1-56

COBALT; lb (c), 500 lb lots, $2.00; 100 lb, $2.02; less, $2.07. Eff. 2-1-57; fines, $2.00

COLUMBIUM: lb, 99½%, dep. on lot: roundels, $55-70; electrode segments, $60-75; rough ingots, $65-80

GALLIUM: gr, 1000 gr lots, $3; less, $3.25

GERMANIUM: gr, 1000 lots, 1st red., 40c (b)-43½c(a); intrinsic, 44½c(b)-48½(a); 10,000 lots, 1st red., 38c(b)-39½c(a); intrinsic, 40.2c(b)-43½c(a).

INDIUM: troy oz, 99.9%, $2.25

IRIDIUM: troy oz, $70-80

LITHIUM: lb 98%, $11-$14

MAGNESIUM: lb (a), 10,000 lb lots, pig ingot 99.8%, 35¼c-36.65c; notched ingot, 36c-37.45c. Eff. 8-13-56

MANGANESE: lb (b), 95½%, carloads bulk, 45c; packed, 45¾c; Elec. (a), frt. allowed E. of Miss., 99.9%, 34c; ton lots, 36c. Eff. 4-1-57. Prem. for hydrogen removed, ¾c lb

MOLYBDENUM: lb (a), powder, carbon red., $3.35. Eff. 8-56

NICKEL: lb (a), duty included, 74c. Eff. 12-6-56; dealers, 70-77c; powder (b) U. S., 80-85c; sinter (a), 70¼c. Eff. 12-6-56

OSMIUM: oz, $70-90, nominal

PALLADIUM: troy oz, $19-21

PLATINUM: troy oz, $76-80, aver., $77

QUICKSILVER: flask, N. Y. $220-25

RADIUM: mg, Ra content, $16-21½

RHODIUM: troy oz, $118-$125

RUTHENIUM: troy oz, $45-$55

SELENIUM: lb, comm. grade, $7.50; high purity, $10.50. Eff. 11-18-57

SILICON: lb (b), 97%, max. .51-.75% Fe, crushed, 23.85c; lump, 22c. Eff. 9-1-57. Hyper-pure: #1, $360; #2, $250; #3, $160; solar cell, $100. Eff. 4-1-57

SODIUM: lb, carloads, 16½c; less, 17c

TANTALUM: kilo (2.2 lb): rod, $128; sheet, $100

TELLURIUM: lb, $1.65-$1.75

THALLIUM: lb, $7.50

TITANIUM: lb (a), A-1, 99.3%, max. .3% Fe, $2.25; max. .5% Fe, $2.00. Eff. 6-3-57

TUNGSTEN: lb, 98.8%, 1000 lb lots, $3.15. Eff. 8-1-57. Hydrogen red., 99.99%, $3.85, Eff. 1-2-58

VANADIUM: lb, 90% V, 100 lb lots, $3.65

ZIRCONIUM: lb (a), sponge, powder, platelets: low hafnium, $7-14; comm. $5-10

U. S. Cadmium Production Fell 9% in Third Quarter

Production of cadmium metal at domestic plants in the third quarter of 1957 was 2.4-million lb, 9% below the second quarter, and 3% below the corresponding quarter of 1956, according to the U. S. Bureau of Mines.

Metal producers' shipments, including those for internal consumption, were about 2.4-million lb, 2% above the preceding quarter, and 4% above the third quarter 1956.

Total stocks of cadmium metal at the end of the third quarter were about 3.5-million lb, 1% below the preceding quarter, but 6% above that of the third quarter 1956. Producers' stocks were about 3.3-million lb, 2% above the preceding quarter; compound producers' stocks and distributors' stocks both declined during the quarter by 18% and 25%, respectively, closing the quarter at 75,000 lb and 212,000 lb.

General imports of metal were about 510,000 lb, 15% above those of the second quarter; those for flue dust (cadmium content) were 264,000 lb, 58% below the preceding quarter. Exports of metal and flue dust (cadmium content) together increased to 211,000 lb, 39% above the second quarter. Statistics of the cadmium industry in the U. S. in 1956, April-June and July-September 1957, in pounds of contained cadmium:

		1957	
	1956	Apr-June	July-Sept
Stocks beginning:			
Metal producers	3,130,626	2,871,461	3,202,823
Compound producers	129,294	108,648	91,761
Distributors	229,804	306,385	281,046
Production (primary and secondary):			
Metal	10,604,356	2,663,714	2,431,498
Sulfide	1,258,446	248,375	178,728
Other salts	56,820	7,228	11,318
Shipments of metals	10,936,459	2,332,352	2,372,190
Imports: (General)			
Metal	1,803,321	443,670	510,211
Flue due	1,624,655	633,464	264,486
Exports:			
Metal / Flue dust	1,284,248	151,267	210,535
Stocks end:			
Metal producers	2,847,123	3,202,823	3,262,131
Compound producers	128,808	91,761	75,096
Distributors	255,774	281,046	211,865

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Harvey Changes Corporate Name

Harvey Machine Co. Inc., founded in 1914, will change its corporate name to Harvey Aluminum, effective Jan. 10, 1958, Lawrence A. Harvey, executive vice president, has announced.

"In view of our growth and expansion in the aluminum industry, the change is necessary to identify more closely the company with its products," said Harvey. "Ownership, corporate structure, management, operations and control remain unchanged; nothing has been changed except the name," he added.

Metallic Ores

Tons of 2000 lb or units of 20 lb, unless otherwise stated. Short ton unit=stu; long ton unit=ltu. (a) c.i.f. U. S. ports, (b) f.o.b. ship. pt., (c) f.o.b. mine or mill

ANTIMONY ORE: stu of Sb cont., 50-55%, $2.25-2.40; 60% $2.40-2.60; lump, 65%, $3.00-3.10

BERYLLIUM ORE: stu BeO cont., 10-12% (c), $46-48 dep. on quan.; imported ore, (a), $36-37

CHROME ORE: lt, dry basis, subject to penalties if guarantees are not met, f.o.b. cars, Atlantic ports

Rhodesian: (c)
48% Cr_2O_3, 3 to 1 ratio ..... (a) $47-$49
48% Cr_2O_3, 2.8 to 1 ratio ..... (a) $44-$46
48% Cr_2O_3, no ratio ..... (a) $37-$39
South African (Transvaal): (c)
48% Cr_2O_3, no ratio ..... $36-$37
44% Cr_2O_3, no ratio ..... $26-$26.50
Turkish (basis 48% 3 to 1):
48% Cr_2O_3, 3 to 1 ratio, lump and concentrates ..... (a) $55-$57
46% Cr_2O_3, 3 to 1 ratio, lump and concentrates ..... (a) $52-$54
Pakistan (Baluchistan):
48% Cr_2O_3, 3 to 1 ratio ..... (a) $52-$53
(a) Nominal. (b) Long term contracts.
(c) 1958 shipment.

COBALT ORE: lb Co cont., (b); Canadian Gov't buying prices, 9%, $1.30; 10%, $1.40; 11%, $1.50; 12%, $1.60. Free market, 10%, 60c; 11%, 70c; 12%, 80c

COLUMBITE ORE: lb of pentoxide, 65% Cb_2O_5, col-tant. ratio 10 to 1, $1.15-1.20; 8½ to 1, $1.00-1.05

IRON ORE: lt, lower lake ports, Lake Superior ore 1957: *Mesabi, non-bessemer*, 51½% Fe, $11.45; *Old Range, non-bessemer*, $11.70 — *Mesabi, bessemer*, 51½% Fe, $11.60; *Old Range, bessemer*, $11.85 — *Eastern ores*, cents per ltu, del. furnaces, foundry and basic, 56-62%, 17-18c — *Swedish*, 60-68% (contracts), stu 25c+dep. on grade, (a) Atlantic — *Brazilian*, gross ton 68½% Fe, (b), $14.-60, prem. for low P. Eff. 1-1 & 4-1, 1958

MANGANESE ORE: Indian, ltu Mn, 46-48% Mn, (a), export duty included, import duty extra, $1.36-$1.39, nominal. Exclusive of export duty, $1.225-$1.255. Low Fe (max. 2%), 48%, ltu, duty extra, nominal. Mn dioxide, 84% MnO_2, lt, bulk, crude, (a), $110-120. Chem. grade, st, coarse or fine, 84% MnO_2, carloads, (b) Eff. 1-1-57: paper bags, $144.50; burlap bags, $148.00; drums $152.50.

MOLYBDENUM ORE: lb cont. Mo, 90-95% MoS_2, (b) Climax, $1.18+cost containers; (b) Washington, Pa., $1.23

TITANIUM ORE: gross ton, ilmenite, 59½% TiO_2, f.o.b. cars, Atlantic ports, $26.25-30.00. Rutile, 94%, st, for del. within 12 mos. $115-120, lower for more distant delivery

TUNGSTEN ORE: stu WO_3, 65% basis: foreign ore, nearby arrival, (a), duty extra, wolfram, $12-$13; scheelite, $11-$12 dep. on grade. Low moly scheelite higher. U. S. scheelite, stu, (c) $19.50-$20. London, ltu WO_3, good ore, wolfram, 90s bid, 95s asked

VANADIUM ORE: lb V_2O_5 cont., dom., (c), 31c

ZIRCON ORE: (sand), lt, (a) Atlantic, 65% ZrO_2, $50-51, dom. 66%, st, (b) Jacksonville, $50; Starke, Fla., $55

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GENERAL AGENTS
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MINING COMPANIES

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BRASS — Cents per lb (base prices)

	Sheet	Wire	Rods
Yellow Brass	42.69	43.23	42.63
Best quality brass ..	43.88	44.42	43.82
Red brass 80%	44.90	45.44	44.84
Red brass 85%	45.67	46.21	45.61
Com'l bronze 90% ..	46.98	47.52	46.92
Gilding metal	47.76	48.30	47.70

Eff. Jan. 13

COPPER — Per lb Sheets, over 20 in. wide, 48.13c, rolls 20 in. and under, 46.16c; Wire, bare, carload lots f.o.b. mills 30.355c, eff. Jan. 13, 1958.

LEAD SHEETS — Per lb, full rolled, 140 sq ft 18½c.

MONEL METAL — Per lb (base prices) Standard cold-rolled sheet, 97c; cold-rolled strip, 99c Rods, hot-rolled 80c.

NICKEL — Per lb (base prices) sheets, cold-rolled, $1.13; rods, hot-rolled, 94c.

NICKEL SILVER — Per lb, sheets, 10% 57.93c; 18% 62.66c; wire and rods, 10% 60.26c.

PHOSPHOR BRONZE — Per lb, sheets 5% tin, 67.17c; wire and rods, 5% 67.67c; 10% 74.38c.

ZINC — Per lb, carload lots f.o.b. mill (base price): Sheet 24c; ribbon 20½c; plates 19c.

ZINC DIE-CASTING ALLOY — Ingot per lb, carloads lots, delivered, No. 3, 14¼c; No. 5, 14¾c.

Metallic Compounds

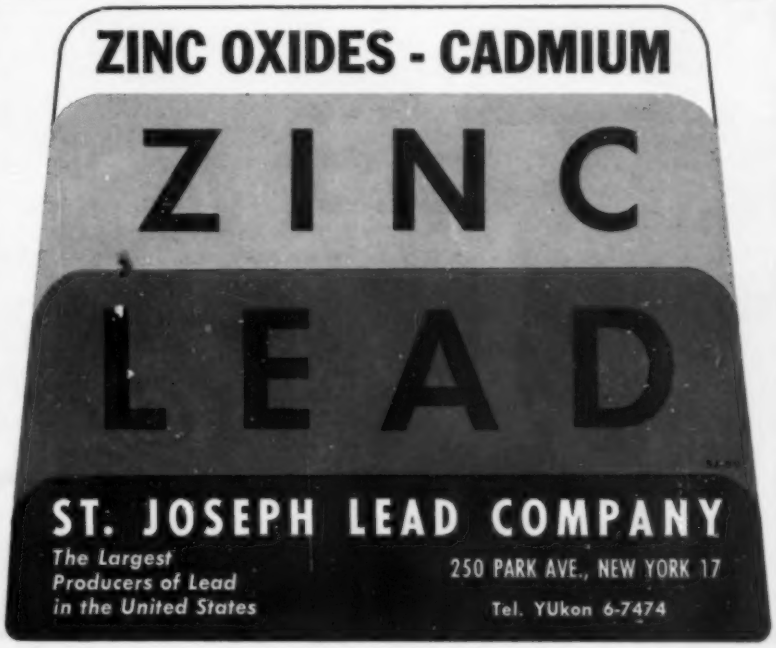
ANTIMONY TRIOXIDE — Per lb, carload lots, 50-lb bags; 24c f.o.b. shipping point; less than carload lots, 26c Eff. Dec. 6.

ARSENIOUS OXIDE (arsenic trioxide), refined, white min. 99%, per lb, 5½c, in barrels carload lots delivered. F.o.b. Laredo, Texas, 4½c; on N. Y. docks, 5c.

COBALT OXIDE — Ceramic grade 72½ to 73½% Co, $1.52 per lb east of Mississippi. and $1.55 per lb west of Mississippi. Grade 70% to 71%, $1.48@$1.51. Quotations are for oxide packed in 350-lb containers. Eff. Feb. 1, 1957

COPPER SULPHATE — Per lb, in carload lots, 10.70c, per 100 lb, crystals or diamond f.o.b. ref'y, eff. Jan. 13.

GERMANIUM OXIDE — Per gm, 22½c to 24c.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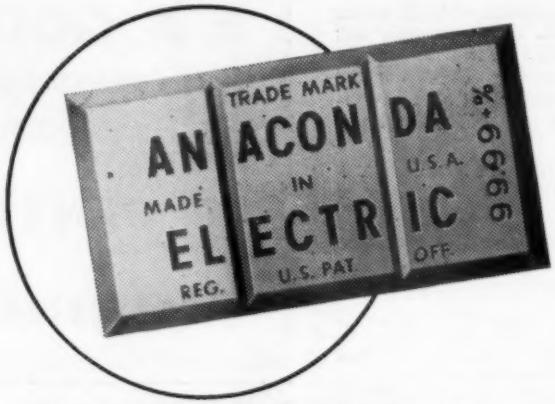

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Washington Report

A NEW LOOK AHEAD – As Washington takes its annual look at the state of the union this election year, the spate of economic forecasts, reports, and recommendations is bigger than ever in light of post-sputnik recognition of Russia's stepped-up military and economic challenge. For the metals and minerals industries, all the Presidential messages to Congress, citizens' committee findings, and Government agency surveys boil down to a simple conclusion:

Producers and processors alike in 1958 will have to live with most of the same problems of supply and demand in 1957, only more so.

Roughly, production and marketing this year will be affected by these things:

1) Government stockpiling: It's not dead yet, but its long-expected demise will be hastened by a smaller budget and the policy recommendations of the Office of Defense Mobilization's Stockpile Advisory Committee.

2) Military purchases: New missile money may help boost demand for some of the lighter metals, but aircraft procurement cuts will continue to hurt even aluminum and titanium. And military requirements for base metals will drop even further.

3) Foreign trade: This is the year of tariff protection, with many metals following the example of lead and zinc producers in seeking new barriers to import competition. Over-all trade policy is up in the air, tied to extension of the reciprocal Trade Agreements Law. Barring a complete turn-around in present policy, however, new trade barriers will be small and slow coming.

4) Civilian markets: Demand for most materials will rise, though not enough to pull many producers out of their troubles nor to hike prices beyond small inflationary factor.

Congress, of course, will play a big role in Government metals and minerals policy, from the standpoint of support programs and trade restriction. The major legislation bearing on industry will be Interior Secretary Seaton's piece-meal plans for long-range exploration and development programs, and the Trade Agreements Act.

The only boost in federal spending on minerals in the new budget is earmarked for research and development, under the Bureau of Mines, including the Defense Minerals Exploration Administration. Lumping conservation funds together, the fiscal 1959 budget submitted this week (which goes into effect July 1, 1958) calls for $18.5-million, up $1.3-million from the current fiscal year. Geological survey work will be boosted $2.5-million to $37.8-million.

STOCKPILING OUTLAYS – Including Defense Production Act and General Services Administration purchases – will drop to $421.9-million, down from $564.8-million. This figure includes $70-million in so-called new money, not authorized for use last year, but the $70-million boost in new authorizations only underscores the fact that stockpiling money is running out. Most of it will go for "put clause" purchases of aluminum and copper which are obligated under long-range incentive contracts but not accounted for in previous budgets.

The appropriations requests follow a pattern that has been known for some time – the Government will continue to shift its support from outright purchases to research and development programs.

ODM stockpiling reports, including its official reviews and the recommendations prepared by its private citizens' advisory committee, emphasize the reason for this shift. Even most of the five-year goals have been reached, nearly all of the three-year goals. With new military concepts stressing a short nuclear war planning theory, the supplies of most materials already on hand are more than are considered necessary.

The short-war theory is also winning out in the area of military procurement. New defense requirements figures are not yet available, but ODM officials report that military purchases of most items are running anywhere up to 50% under last year's estimates. This means that metals and minerals marketers cannot look to bigger missile funds to increase significantly the total military take. Only the materials directly used in the manufacture of missiles can take hope from this field of Government procurement.

The problem of increasing competition from imported metals and minerals is a highly controversial one. Most Washington economic experts say that selected tariff boosts, even if they can be won by domestic producers' efforts in Congress and through the tariff Commission or the ODM, will have little effect on domestic prices, other than to stall their downtrend. On the other hand, the mere promise of more military spending may reduce talk of a general recession, and firm up civilian demand to the point where it may reduce overloaded inventories and absorb inflationary price boosts on some items.

The concensus of Government metals and minerals advisors is that expanded civilian markets hold the brightest hope for future sales. Some foresee voluntary production controls and increased expansion in overseas mines and processing plants.

For a few selected items, Commerce Department's Business and Defense Services Administration has taken its own look in the crystal ball.

Aluminum – More consumption in automobiles will help if production stays steady.

Columbium-Tantalum – A boost in both production and demand from the missile step-up.

Copper – Up to 10,000 tons a month may become eligible for "put clause" purchases if the downward price trend continues. Demand may turn up in the third quarter of 1958.

Magnesium – Production and consumption will both slide off further.

Manganese – Government purchases of type B grade metal may increase.

Nickel – The 440-million-lb production goals will be met by 1961.

Titanium – No upturn until the second quarter, when orders may drain off inventory excess.

Tungsten – Stockpiles are already overloaded.

Aluminum Alloy Bus Bar Conductivity Raised to 60%

Aluminum Company of America has announced the commercial availability, for many applications, of aluminum alloy bus bar with guaranteed minimum electrical conductivity of 60% I.A.C.S., at no increase in price.

Designated as No. 2 EC-T64, the new temper represents the pinnacle of a technological advance beginning 1954, when the guaranteed minimum conductivity for the same class of alloy was but 55%. Since that time Alcoa has pioneered in raising the figure point by point, culminating in 60% for the T64 temper.

Figures released by Alcoa place the tensile strength of the T64 temper at 15,000 psi, with a yield strength of 8,000 psi and excellent bending properties.

With all of these properties guaranteed, designers can effect, in many instances, a marked savings either in the form of smaller bus conductors or smaller power losses, or a combination.

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Manganese Compound Used In New Antiknock Gasoline

Ethyl Corp. reports that patent coverage has been obtained on a new antiknock compound for gasoline announced by the company last June and currently being tested by numerous oil companies.

The experimental antiknock agent, which is an organic compound of manganese, is the first potentially commercial antiknock since the introduction of tetraethyl lead, the company said. Ethyl in its development work has been testing it as a supplement to tetraethyl lead.

Generally speaking, the company said, the class of chemicals covered by the patents is one in which a cyclopentadienyl group is attached to a metal which is also attached to other organic and inorganic groups. The specific antiknock which Ethyl is making available to oil companies for their evaluation is a derivative of cyclopentadienyl manganese carbonyl, and has been designated AK-33X.

Samples of AK-33X, Ethyl pointed out, have been made available to several hundred oil and other companies here and abroad for their evaluation. Meanwhile Ethyl's research and development, in a comprehensive road and laboratory program, has been evaluating the compound's potential use in automotive fuels.

E&MJ QUOTATIONS

Daily Prices of Metals

Jan.	COPPER ELECTROLYTIC Domestic Refinery	Export Refinery	LEAD New York	LEAD St. Louis	ZINC (b) Delivered (a)	ZINC (b) East St. Louis	ALUMINUM Primary Pig 99%	TIN Straits New York
9	26.550	21.600	13.000	12.800	10.500	10.000	26.000	93.750
10	26.550	21.725	13.000	12.800	10.500	10.000	26.000	93.625
11	No Market	21.725	13.000	12.800	10.500	10.000	26.000	93.625
13	24.600	21.350	13.000	12.800	10.500	10.000	26.000	93.375
14	24.575	21.700	13.000	12.800	10.500	10.000	26.000	92.625
15	24.575	21.625	13.000	12.800	10.500	10.000	26.000	92.250
Averages	25.370	21.621	13.000	12.800	10.500	10.000	26.000	93.208
Calendar Wk. Avgs.								
Jan. 6-11	26.410	22.008	13.000	12.800	10.500	10.000	26.000	93.500

(a) Prime Western Zinc sold on delivered basis at centers where freight from East St. Louis exceeds one-half cent a pound.

The above quotations are our appraisal of the major United States markets, based on sales reported by producers and their agencies. They represent payments received by producers for the product. They are reduced to the basis of cash, New York or St. Louis, as noted. Prices in cents per pound.

Copper, lead and zinc quotations are based on sales for prompt and future deliveries; aluminum weighted average prices are based on estimated sales and announced prices; tin quotations are for prompt delivery only.

COPPER prices, domestic, in the trade are quoted on a delivered basis, that is, delivered at consumer's plants. As delivery charges vary with the destination, the figures shown above are net prices at refineries on the Atlantic seaboard. Beginning Jan. 2, 1957, the average differential between delivered and f.o.b. prices is taken as 0.400c per lb.

COPPER quotations, foreign or export, reflect prices obtaining in the open market and are based on sales in the foreign market reduced to the f.o.b. refinery equivalent, Atlantic seaboard. On f.a.s. transactions, eff. Jan. 2, 1957, we deduct 0.125c. for lighterage, etc., to arrive at the f.o.b. refinery quotation.

COPPER quotations are for ordinary forms of wirebars and ingot bars. The premiums on special shapes, effective in some instances on deliveries beginning Sept. 1, 1955, are: Standard ingots 0.25c per pound; slabs 0.55c and up, cakes 0.6c and up, depending on weight and dimensions; billets 1.725c and up, depending on dimensions and quality. Discount on cathodes 0.125c to 0.15c per pound.

ZINC quotations reflect sales of the Prime Western grade as well as sales of other grades when sold on a Prime Western basis. (b) **Zinc premiums** . . . obtaining over Prime Western zinc in the East St. Louis market on the following grades, in cents per pound: **Selected 0.10c; Brass Special 0.25c; Intermediate 0.5c. High Grade** zinc sold on contract, delivered to the consumers' plants, commands a premium of **1.35c** per pound over the East St. Louis basis for Prime Western; **Special High Grade** premium or differential is **1.75c** per pound, effective Dec. 1, 1955.

LEAD quotations are for the common grade, and are based on sales of domestically refined metal sold to domestic consumers. The differential on sales in the Chicago district is 15 points under New York; for California 20 points under New York; for New England add 7½ points to the New York basis. Corroding grade commands a premium over common lead of 10 points.

ALUMINUM quotations refer to primary pig, 99%, delivered to consumers. The U. S. primary producers as well as the major exporter of primary aluminum to the U. S., quote prices delivered to consumers in the U. S. The weights are estimated on the basis of daily average primary capacity in those cases where daily sales or shipments are not available. Ingot sales by primary producers, reduced to the pig price, are included in calculating the quotation. The premium on standard ingots, 99+% is 2.1c per lb.

Note: The daily quotations for copper, lead and zinc are weighted averages of sales reported to *E&MJ;* weekly averages are arithmetical averages of the daily quotations; monthly averages are the arithmetical averages of the daily quotations.

Silver, Gold, and Sterling Exchange

Jan.	Silver N.Y.	Silver London	Sterling Exchange	London Gold (a)
9	89.875	77.125d.	281.0625	249s. ½d.
10	89.875	77.125d.	281.1562	248s. 11¼d.
11	Not Quoted			
13	89.875	77.125d.	281.3437	248s. 10¾d.
14	89.875	77.125d.	281.3750	248s. 8¾d.
15	89.625	77.125d.	281.2187	248s. 10d.
Av.	89.825	—	281.231	—
Calendar Wk. Avgs.				
Jan. 6-11	89.875	—	281.075	(a) Open Market

The daily silver quotation reported by Handy & Harman, in cents and fractions of a cent per troy ounce, is the price paid by Handy & Harman in settlement for silver contained in unrefined silverbearing materials submitted to them for refining. It is determined on the basis of offers of bar silver .999 fine as made to Handy & Harman for nearby delivery at New York by regular suppliers in quantities sufficient to meet daily requirements, and it is usually one quarter cent below the price at which such offers are made.

The Treasury's purchase price of newly mined domestic silver was established at 90.5c per troy ounce, 1000 fine, effective on July 1, 1946 under an amendment to the Silver Purchase Act of July 6, 1939.

London silver quotations are in pence per troy ounce, basis .999 fine.

London gold quotations are per troy ounce, basis 1000 fine.

Sterling, in cents, noon buying rate for cable transfers as certified by the Federal Reserve Bank of New York, for customs purposes.

Aluminum Alloys Secondary

Jan. 9-15

No. 13	25.48c
No. 43	25.52c
No. 360	No Quote
No. 380	21.57c

The secondary aluminum alloy prices are weighted average prices calculated from reports by secondary aluminum producers of the prices and quantities of their sales.

London Metal Exchange

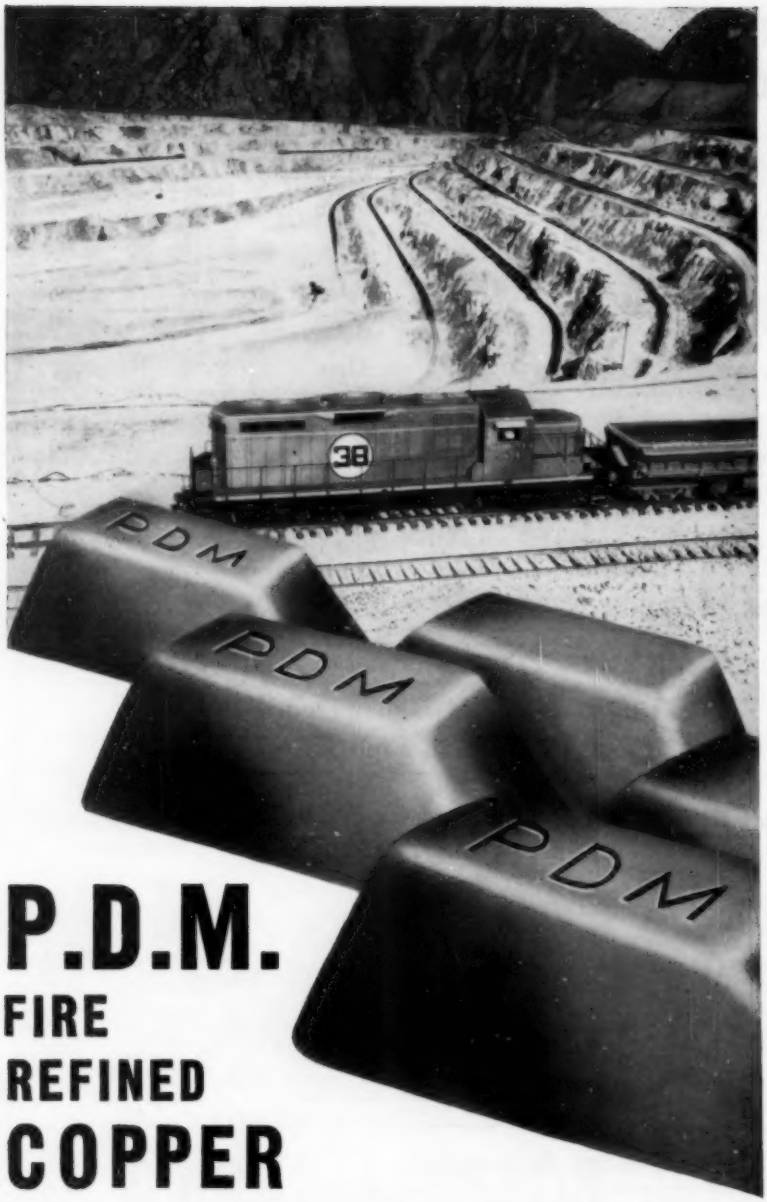
Jan.	COPPER Cash Bid	COPPER Cash Asked	COPPER 3 Mo. Bid	COPPER 3 Mo. Asked	LEAD Current Month Bid	LEAD Current Month Asked	LEAD 3 Mo. Bid	LEAD 3 Mo. Asked	ZINC Current Month Bid	ZINC Current Month Asked	ZINC 3 Mo. Bid	ZINC 3 Mo. Asked	TIN Cash Bid	TIN Cash Asked	TIN 3 Mo. Bid	TIN 3 Mo. Asked
9	175¾	176	179	179¼	72⅛	72⅜	72⅜	72½	62⅞	63⅛	62½	62⅝	730	730½	731	732
10	175¾	176	178¾	179	72½	72¾	72¾	73	62¾	63	62½	62⅝	730	730½	731½	732
13	177	177½	180	180¼	73	73¼	73¼	73½	63½	63¾	62¾	62⅞	730	730½	729½	730
14	173¼	173½	176	176½	72½	72¾	72¾	73	62½	62¾	62¼	62⅜	730	730½	726	726½
15	173½	173¾	176	176¼	71¾	72	72¼	72½	61¾	62	61¼	61½	730	730½	723	723½

Prices are for the official a.m. session in pounds sterling per ton of 2240 lb. Copper basis wire bars, lead 99.97%, zinc 98% and tin min. 99.75%.

THIS WEEK'S BUSINESS INDICATORS

	Latest Week	Preceding Week	Month Ago	Year Ago	Net Change Year Ago
Steel Rate (% of capacity in operation)	(d) 56.8	(a) 56.1	69.2	98.3	−41.5
Steel Ingot Production, thousands of tons	(d) 1,538	(a) 1,515	1,770	2,517	−979
Automobile Production (cars and trucks)	(d) 147,326	(a) 93,304	175,253	177,542	−30,216
Electric Power Output (millions kwh.)	11,692	11,218	12,315	11,671	+21
Engr'g Const. Awards, 4-week daily av., in thousands (c)	$41,999	$44,075	$46,603	$62,716	−$20,717
Federal Reserve Index of Industrial Production (e)	(d) 138 Dec.	....	139	147	−8
E&MJ Index of Nonferrous Metal Prices (e)	174.42 Dec.	....	175.46	216.27	−41.85
All Commodities, Bureau of Labor Statistics (e)	(d) 118.1 Dec.	....	118.0	116.6	+1.5

(a) Revised. (b) 100 is composite of 1922-3-4. (c) From Eng. News-Record. (d) Preliminary. (e) Base period 1947-49



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(on contract, eff. 2 Jan. 1958, unless otherwise indicated)

FERROCHROMIUM — per lb contained Cr; carload lots, lump, bulk; f.o.b. dest. cont. U. S. —
High Carbon (4-9% C, 65-70% Cr) 28.75c
Low Carbon (0.10% C, 67-72% Cr) 38.50c Eff. Oct. 1, 1957
Special (0.01% C, 63-66% Cr) 37.75c Eff. Oct. 1, 1957

FERROCOLUMBIUM—per lb contained Cb; ton lots, lump (2 in) packed; f.o.b. dest. cont. U. S. —
(50-60% Cb, max 0.40% C, max 8% Si) $4.90, eff. May 17.

FERROMANGANESE: Standard — per lb; carload lots, lump, bulk; f.o.b. sh pt
(74-76% Mn) 12.25c eff. Sept. 19, 1957.
Medium Carbon—per lb contained Mn; carload lots, lump, bulk; f.o.b. U.S. —
(80-85% Mn, 1¼-1½% C) 25.50c
Low Carbon—basis as for Med. Carbon—
(85-90% Mn, Max, 0.07% C) 35.10c
Changes Dec. 15 and Jan. 1.

FERROMOLYBDENUM — per lb Mo; 5,000 or more lb lots; f.o.b. shipg pt—
(58-64% Mo) powdered, packed $1.74
Other sizes, packed $1.68.
Calcium Molybate (Ca0 Mo03) lump, packed $1.42.
Technical Molybdic Trioxide (Mo03) lump, bagged $1.38; lump, canned $1.39; briquets packed $1.41.

FERROPHOSPHORUS — per gross ton; carload loats, lump, bulk (max 6 in.); f.o.b. shipg pt (equivalent to Tenn.)—
(23-26% P) $110 plus $4 per 1% above or below 24%, eff. Jan. 2

FERROSILICON—per lb contained Si; carload lots, lump, bulk; f.o.b. shipg pt—
(50% Si) 14.20c. Eff. Oct. 1, 1957

FERROTITANIUM: Low Carbon — per lb contained Ti; ton or more lots, lump (½ in. +), packed; f.o.b. dest. NE U.S.—
(40% Ti, max 0.10% C) $1.35
(25% Ti, max 0.10% C) $1.50
Medium Carbon—per net ton; carload lots, lump, packed; f.o.b. dest. NE U.S.—
(17 to 21% Ti, 3-5% C) $290-5, eff. Apr. 1.
High Carbon—basis as for Med. Carbon—
15 to 19% Ti, 6 to 8% C) $240-5, eff. Apr. 1, '57.

FERROTUNGSTEN — per lb contained W; 5.000 or more lb lots, lump (¼ in.), packed; f.o.b. dest. cont. U.S.—(70-80% W) $2.15. Nominal.

FERROVANADIUM — per lb V; carload lots, var. sizes, packed; f.o.b. U.S. —
(50-55% V) Open Hearth $3.20, Crucible $3.30, High Speed $3.40.
Eff. 9-14-'56 and 10-1-'56.

SILICOMANGANESE—per lb; carload lots, lump, bulk; f.o.b. shipg pt
(1.5% C max, 18-20% Si) 12.80c
(2% C max, 15-17½% Si) 12.60c
(3% C max, 12-14½% Si) 12.40c
Eff. 3-19-1957.

SPIEGELEISEN—per gross ton; carload lots, lump, bulk; f.o.b. Palmerton Pa.—
3% max Si, 16-19% Mn $100.50
3% max Si, 19-21% Mn $102.50
3% max Si 21-23% Mn $105.00
Eff. on orders of Jan. 7, 1957.

Lower Ferro-Alloy Sales Tied to Steel Output

The reduction in business activity during the second half of 1957 was reflected in a decrease in the production of steel generally, and especially of stainless and other high-alloy steels. This decrease in steel production, together with the reduction of raw material inventories by the steel producers, resulted in lower than predicted ferroalloy sales, reported H. K. Intemann, president of Electro Metallurgical Co.

No Last Quarter Surge

"Stainless steel production in the first quarter of 1957 was higher than that of the record years 1955 and 1956," said Intemann, "but the second and third quarters were considerably lower, and the traditional fourth quarter surge failed to materialize. Stainless steel for automotive use and for export were the only categories that presented a bright picture during the year. All other categories were down—especially appliances, utensils, and cutlery; electrical equipment and machinery; aircraft; and dairy equipment. The general decrease in stainless, as well as carbon and alloy steel production, naturally resulted in lower sales of chromium, manganese, and silicon alloys.

Significant was the increase in production of the chrome-nickel-manganese stainless steels, the 200 series. About 25,000 ingot tons were produced in 1957, reported Intemann, against 19,500 tons in 1956, and 1,900 tons in 1955. The high level of acceptance of this grade becomes even more evident when it is considered that this increase in use ran counter to the general downward trend in stainless steel production.

Increased Labor Costs

In the ferroalloy industry, productivity increases obtained in 1957 helped to partially offset rises in labor costs. Several ferroalloy producers announced installation of improved production equipment such as rotating hearth electric furnaces, and the opening of new and more efficient plants. For 1958, precommitted labor increases will have more of an effect on production costs than any probable reduction in raw material and ore costs. Even greater efforts will be necessary to further increase productivity to keep operating costs competitive.

Below 1957 Level

Steel production in 1958, predicted. Intemann, will be somewhat below the level for 1957, and will probably not exceed 109,000,000 ingot tons. Over-all demand for ferroalloys could be somewhat higher during 1958 because inventories were reduced to a minimum during 1957, and purchases will be required for current consumption. Operating rates in the second half of 1958 are expected to be higher than those in the first half.

In the nonferrous industry, consumption of silicon metal and ferrosilicon for aluminum castings – sand, die, and permanent mold – continued at about the same level as that for 1956. In 1958, a healthy rate of automobile production could increase silicon metal and alloy consumption because of the increased weight of aluminum castings used per car.

More Metals

"Accelerated demands in 1958 for gas turbines, missiles, supersonic aircraft, and atomic reactors," continued Intemann, "will require increased production of heat resisting stainless steels and high-temperature alloys. The trend will be toward more careful selection of alloys and alloying agents to insure that the greatest possible advantages are taken of properties. These specialty materials will require increased amounts of such metals as chromium, nickel, cobalt, manganese, molybdenum, tantalum, tungsten, columbium, titanium and vanadium."

During the year, the company began production of the highest purity columbium metal commercially available, and reduced prices of two important metal chemicals, silicon nitride and molybdenum disilicide. Electromet also increased its interest in the production of ultra-high purity tantalum metal, vital for use in high temperature capacitors for guided missile systems and for chemical processing equipment.

Market Extremes

According to Intemann, the year 1957 also saw extremes in the titanium industry. Early in January 1957, Electromet announced that its titanium sponge plant at Ashtabula, Ohio, the largest in the world and the first to use the sodium reduction process in the U. S., was in full production. This brought the nation's sponge capacity to a new high of about 30,000 tons per year.

Drastic Reduction

Production of mill products at the beginning of the year was also at a high, reflecting record demand. About the middle of the year there was a drastic reduction in orders for titanium mill products brought about by Government efforts to economize and the resultant stretchout in production of manned aircraft. In addition there was a technical transition from production of conventional aircraft to development of missiles and rockets. These revisions in military requirements will hold 1957 production to about 16,000 tons of titanium sponge. It is anticipated that 1958 demand for titanium sponge will be substantially less than 1957 production.

Seek Healthy Market

Efforts are being redoubled by the industry to create a healthy non-military titanium market in the chemical processing, pulp and paper, marine, electronic, aviation and automotive industries. "Titanium," declared Intemann, "will take its rightful position among the metals. Its obvious virtues of light weight, high strength at elevated temperatures, and corrosion resistance will continue to suggest new volume uses. Advancements in technology and know-how will further reduce the price of the metal. It is reasonable to expect a growth to an annual usage of 20,000 to 25,000 tons of mill products in the next 10 years. This would be four to five times the record production in 1956."

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High Grade
Continuous Galvanizing Line Grades

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Mineral and Ore Markets

Manganese ore markets are showing no signs of firming. We have heard no reports of new business. Hopes of some importers rest with the possibility of a barter deal between India and the U.S. (discussed here last week). We are told by reliable sources that signing of such an agreement is not imminent. Apparently the talks have not reached a stage to which "agreement" is applicable. There is a possibility it will not go through. There is little doubt India will get U.S. eatable grains; there is a good possibility at least part of the payment will be in manganese ore. But it may be months before the matter is settled.

Prospecting for manganese ores has been increasing in Australia according to our correspondent in Melbourne. Australia is exporting metallurgical manganese ore to Japan and the U.S.

•

Ferrochrome is not being shipped from India. Last week we wrote that 3,000 tons were destined for the U.S. and that there were three plants in India (all of which were partly financed with U.S. money), another being built and a fifth planned. We should have indicated this referred to ferromanganese rather than ferrochrome.

•

Germanium prices are down again. Importers are now selling first reduction (one ohm) germanium at about 38c a gram in 10,000 gram lots; domestic is 39½c. The 30 ohm germanium is now 40.3c delivered for imported and about 43.5c f.o.b. (40 ohm) for domestically produced metal. Imported 50 ohm germanium sells now for 41.25c delivered in large lots. Imported dioxide is selling for 22½c per gram and domestic at 24c.

The lower prices reflect the slowing up of some branches of the electronics business, good stocks on the part of some of the large users, and much less waste in use by producers of transistors and diodes.

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Metallurgical grade fluorspar prices are weakening, some factors report. This reflects the lower activity on the part of metal firms using fluorspar and the recent drop in ocean freight rates. Fluorspar, 72½% grade, metallurgical, is now about $30.50 to $31 per short ton c.i.f. U.S. ports. For long term contracts the price is about 50c less.

Acid grade markets have not weakened much. The 0.3% moisture material is about $47 to $48 per short ton c.i.f. U.S. ports and filter cake is about $38 to $38.50. Acid grade from Mexico, 0.3% moisture, is about $40 per short ton duty paid f.o.b. border.

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Barytes markets are uncertain. Reduced drilling of oil and gas wells has slowed the activity in the oil well grade. Imported oil well grade with minimum 4.25 specific gravity is about $13.50 to $14 per short ton c.i.f. U.S. ports. The ground oil well grade is also down, we are told.

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Quicksilver is $220-25 per flask, large lots, N.Y. Opinions of the market vary, but reports to *M&MM* make it clear that European metal is available here in large lots at well under the U.S. Government's buying price for domestic and Mexican. The market is very weak; sales and inquiries have been scattered. The free market has slipped in recent weeks making bargains available from day to day. Some improvement has been noted in European markets.

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A Custom Smelter Copper Price January 9-15

The following prices are computed by *E&MJ Metal and Mineral Markets* from data on flat price and average price sales reported by the American Smelting & Refining Co. They refer to electrolytic copper in standard shapes.

Delivered consumers' plants ...24.750c
F.O.B. refinery 24.350c

They are for sales in the U.S. market and are adjusted to the nearest one-eighth cent. A one-quarter cent deduction for selling commission has been made.

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Refractories

CHROME BRICK — Per ton f.o.b. shipping point: Chemically bonded Balt. $105, Calif. $115, burned, $99.

FIRECLAY BRICK—Per M, first quality, $128., Missouri. Kentucky, Pennsylvania; second quality, $114. Ohio, No. 1, $120; No. 2, $103.

MAGNESITE — Brick, per ton f.o.b. works, 9-in. straights, $121; chemically bonded, $116.

SILICA BRICK—Per M, Pennsylvania, $155; Alabama, $150; Illinois, $160.

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Iron, Steel, and Coke

PIG IRON — Per gross ton Valley furnaces: Bessmer, $67.00, basic, $66.00 and No. 2 foundry $66.50.

STEEL — Per net ton, f.o.b. mill, Pittsburgh, billets and slabs, $77.50; Bars per 100 lb, $5.525; plates and structural shapes, $5.10@$5.275.

STEEL SCRAP — Per gross ton, delivered Pittsburgh, No. 1 heavy $32-33 No. 2 heavy $30-31. Cleveland, No. 1 heavy $27-28, No. 2 heavy $21-22.

COKE — Per ton, Connellsville furnace, $15.25; foundry, $18.25.

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Lead Average (Monterrey)

The net price realized by the American Smelting & Refining Co. on all of its sales of Mexican pig lead, including metal sold for consumption in Mexico, during the week ended Jan. 11, 1958, was 9.28c (U.S.) per lb f.o.b. refinery Monterrey, Mex.

Smelters' Aluminum Alloys

Delivered prices of smelters' aluminum ingot, per pound, in lots of 10,000 lb. or more.

Piston alloy D132 24½@25½c. No. 12 alloy 22½@23c; No. 13 alloy, max. .30 copper, 26@26¼c.

Deoxidizing grades: No. 1, 23@24; No. 2, 21¾@22½c; No. 3, 20½@21½c; No. 4, 18¼@19¼c.

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Tri-State Concentrates

Joplin, Jan. 14, 1958

(a) Blende	Per Ton
Prime coarse (60% zinc)	$56
Flotation, 60% zinc	$56

(a) Effective July 8, 1957

Galena	
Coarse and flotation, 80% lead....(a)	$156.12

(a) Effective December 2, 1957

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Brass and Bronze Ingot

85-5-5-5 (No. 115) 26¼c; 80-10-10 (No. 305) 30¼c; 88-10-2 (No. 215) 33c; Yellow, (No. 405) 21¾c, and upward. Manganese bronze (No. 420) 23c.

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Smelters' Copper Scrap Prices

Custom smelters' buying prices for scrap, carload lots, refinery:

No. 1 copper and wire, 19¾c; No. 2 heavy copper, 18¼c; light copper, 16c; refinery brass 17¾c.

Dealers' Scrap Prices

Dealers' buying prices, f.o.b. New York or equivalent freight points, for wholesale quantities, in cents per lb.

No. 1 copper wire	17½@18
Heavy copper & wire, mixed	15½@16
Light copper	13½@14
No. 1 composition	14½@15
Composition turnings	14@14½
Light brass	9@9½
Yellow brass turnings, mix	9@9½
Heavy yellow brass, mixed	11@11½
Auto radiators, unsweated	11½@12
Brass pipe, cut	12@12½
Rod brass turnings, No. 1	11½@12
Rod ends, brass	11½@12
New soft brass clips	13@13½
Cast aluminum, mixed	10½@11
Aluminum crankcases	10½@11
Aluminum clips, new soft	13½@14
Sheet aluminum, old clean	10½@11
Aluminum turnings, clean	6½
Zinc die cast, mixed	1¾
Zinc die cast, new	3
Old zinc	3
New zinc clips	4½
Soft or hard lead	8½@9
Battery plates	4
Babbitt mixed	10½@11
Linotype or stereotype	11½@12
Electrotype	10@10½
Solder joints close cut	15½@16
Block tin pipe	72@73
Autobearing babbitt	35@36
Monel clips, new	28@29
Monel sheet, clean	28
Nickel, rod ends	42@45
Nickel, clippings	42@45